



# Technical Safety



## RADIATION PROCEDURES MANUAL

### Procedure Cover Sheet

Procedure Title: NMMSS Report

Procedure Number: TSO-08-05-REV 0

Effective Date: September 1, 2008

Approved By: Richard R. Bey Date: 19 May, 2009  
Technical Safety Office Director



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## **A. INTRODUCTION**

The Nuclear Materials Management and Safeguards System (NMMSS) is a radioactive source inventory that all NRC licensees and DOE contractors are required to complete for certain government- or privately-owned material types. A list of the nuclear material type codes required for reporting in NMMSS is provided in the DOE NMMSS Manual DOE M 470.4-6.

## **B. PURPOSE**

The purpose of this procedure is to explain the steps involved in completing NMMSS Forms 741, 142 and 142C for the reportable nuclear material at Idaho State University (reporting identification symbol ZJK).

## **C. REQUIRED MATERIAL(S)**

Current NMMSS file  
DOE NMMSS Manual DOE M 470.4-6

## **D. PROCEDURE**

Idaho State University's NMMSS reporting identification symbol (RIS) is ZJK and all NMMSS paperwork will refer to ISU by this ID. ISU is required to file a NMMSS Report once a year - the reporting period runs from April 1<sup>st</sup> of the preceding year to May 31<sup>st</sup> of the current year. The Technical Safety Office address should be used for the ZJK RIS. The ISU NMMSS Report includes three forms: 741, 142 and 142C.

**Current NMMSS File**

All 741 forms for material received in or shipped out during the current year should be placed in this file to serve as a reference in April when the full report is generated and sent to NMMSS. This information will be needed in order to fill out all three NMMSS Forms detailed below.

*Note: The ISU NMMSS representative can greatly help with the accumulation of information needed to complete the NMMSS report. It is a good idea to e-mail the representative before beginning the NMMSS reporting process and ask for copies of NMMSS Reports A-200 and TJ-23 for the ISU RIS(ZJK) for the reporting period under review. These reports list the incoming and outgoing material and material totals on file at NMMSS and are useful for comparative purposes. This representative is also a good reference source regarding any issues with the NMMSS Report.*

## **Form 741**

This form is used to report NMMSS material shipments or receipts. The form has two sections, one for the shipper and one for the receiver. When NMMSS material is shipped (transferred) to another non-ISU location, such as the INL or ORAU, a Form 741 must be generated and sent to the applicable parties. Similarly, when new NMMSS material is received by ISU from a DOE or NRC site, a Form 741 will be sent to the RSO or Technical Safety Office from the shipper with the shipper's section of the form completed. Information reported in the form includes the RIS, the shipment date, the material type, a project number and the material element or isotope weights.

### Form 741 – Receipt:

1. Verify that the information at the top of the form and in the shipper's portion of the form is correct.
2. Carry the column entries over into the receiver's section.
3. Sign and date the form on line 27s.
4. Fax the form to NMMSS.

### Form 741 – Shipment:

1. Go to the NMMSS website: [www.nmmss.com](http://www.nmmss.com)
2. Under the "Newsletters and Forms" heading, go to the "DOE/NRC Transactions" heading and open a Form 741.
3. Fill in the upper portion of the form according to the instructions in DOE M 470.4-6.
4. Fill in the shipper's data section. Most of the information about the source needed for the completion of this section can be found in the previous year's NMMSS report. Consult the NMMSS instruction manual for additional line-by-line assistance.

5. Sign and date the form on line 26s.
6. Fax the form to NMMSS and the party receiving the material.

### **Form 742**

This form is used to report additions or subtractions to the total element or isotope weight of a particular material type. Additions from incoming shipments or losses due to outgoing shipments, decay, experimental use etc. must be accounted for in this form. The total quantity of the material type in ISU's possession for the date at the end of the reporting period is reported to NMMSS at the end of this form.

1. Fill in ISU's address, license number, and reporting identification symbol at the top of the form.
2. Enter the dates of the reporting period and the material type.
3. On line 8, enter the beginning inventory element and/or isotope weights. These values can be taken from the "Total" inventory weights in Line 82 from the previous year's NMMSS report.
4. If a new shipment of this material was received during the reporting period, enter the shipper's name and RIS and the element and/or isotope weights received into Line 30.
5. Fill in the "Total" for additions in Line 40.
6. If losses of the material occurred during the reporting period, find the appropriate line and enter the element and/or isotope weights.
7. Fill in the "Total" for additions and losses in Line 82.
8. Sign and date the form.

*Note: Line by line assistance for this form can be obtained in the DOE NMMSS Manual DOE M 470.4-6.*

### **Form 742C**

This form is used to itemize the DOE project numbers and their associated element and/or isotope weights for a particular material type.

1. Fill in ISU's address, RIS and license number and the inventory date at the top of the form.
2. Under "Batch Data," itemize each DOE project number for the material type being reported under Column e. Often there will only be one project number associated with a material type, but on occasion a material will have several project numbers (for example, californium).
3. Complete the rows for each project number by filling in Columns a, b, c, d, g, and h, as applicable.
4. Create a sequence number for each row in Column i. The sequence number is the row number, i.e. 1 for the first project number, 2 for the

second project number, etc. Enter the total number of rows in the last block of the column under Line 9 "Totals."

5. Sum the element and/or isotope weights in the final block of Columns c and d under Line 9 "Totals." These element and/or isotope totals must equal the totals at the end of Form 742.
6. Sign and date the form.

*Note: When a loss has been reported for a particular material type in Form 742, it is important to keep track of the project number to which the loss applies since the element and/or isotope weights entered into Form 742C must reflect the loss in the correct project number row.*

### **NMMSS Form Submittal**

Once a Form 741, 742 and 742C has been completed for each NMMSS material type possessed by ISU, the forms should be assembled into a package and faxed to NMMSS as a set. It is important to keep in contact with ISU's NMMSS representative to ensure that the faxed forms were received by NMMSS and that nothing was missing or incomplete.

### **NMMSS Form Filing**

The ISU Technical Safety Office maintains a NMMSS file in Room 101A. All paperwork relevant to the NMMSS Report for a particular reporting period should be placed in a new folder labeled "NMMSS x/x/xx – x/x/xx" and filed chronologically within the NMMSS files.

## **REFERENCES**

U.S. Department of Energy. Nuclear material control and accountability. Manual DOE M 470.4-6. Reviewed August 26, 2007.



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## REVISION TRACKER

Revision 0	September 1, 2008	Original Procedure
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